

# Agile Project Management vs. Traditional Approaches: A Comparative Study of Benefits, Challenges, and Recommendations

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**Abstract** - This study compares Agile project management with traditional methodologies such as Waterfall and PMBOK-based approaches, focusing on their benefits, challenges, and practical applications. Agile emphasizes adaptability, iterative development, and customer collaboration, making it suitable for dynamic environments with evolving requirements. In contrast, traditional approaches prioritize structured planning, predictability, and comprehensive documentation, which are advantageous for projects with well-defined scopes and minimal changes. The analysis explores key dimensions including flexibility, stakeholder engagement, risk management, cost control, and delivery speed. Findings indicate that Agile excels in responsiveness and stakeholder involvement, while traditional methods offer superior control over scope and budget. Based on case studies and industry insights, the paper provides recommendations for selecting the appropriate methodology according to project size, complexity, industry context, and team structure.

**Keywords:** Agile Project Management, Traditional Project Management, Waterfall, PMBOK, Flexibility, Risk Management, Stakeholder Engagement, Delivery Speed, Project Methodologies, Comparative Study.

## 1. INTRODUCTION TO PROJECT MANAGEMENT METHODOLOGIES

### 1.1. Definition of Agile Project Management

Agile project management embodies a dynamic and iterative framework that emphasizes adaptability, teamwork, and continuous improvement. Unlike traditional methodologies, which typically follow a linear and sequential path, Agile promotes the importance of responding to changing demands and feedback. This inherent flexibility enables teams to adjust their strategies based on immediate insights and evolving client expectations.

At the heart of Agile project management are short cycles known as sprints. These defined intervals usually last between two to four weeks, during which teams focus on completing specific tasks that align with overall project objectives. Each sprint concludes with a potentially shippable product increment, allowing stakeholders to regularly evaluate progress and provide input for future iterations. This ongoing exchange enhances collaboration between team members and clients, ensuring that expectations are met and adjustments can be made quickly when needed.

The foundation of Agile methodologies is rooted in core principles outlined in the Agile Manifesto. These principles prioritize valuing individuals and interactions over rigid processes, focusing on working outputs rather than extensive documentation, fostering customer collaboration over contractual obligations, and embracing change instead of adhering strictly to a predetermined plan. By embodying these ideals, Agile creates an environment where teams can work together while maintaining a strong focus on delivering value effectively.

Additionally, Agile places significant importance on empirical process control—regular evaluations of progress through feedback cycles allow teams to iterate quickly and continuously refine their methods. This approach not only enhances overall productivity but also empowers teams by granting them the authority to make decisions that align with their immediate project goals.

Agile is particularly effective in situations where initial requirements may be unclear or subject to change—such as in software development or creative industries—where responsiveness is crucial for achieving success. See references: (Goetz, 2023)<sup>[1]</sup>, (From Agile to Waterfall: A Breakdown of Project Management Methodologies, 2025)<sup>[24]</sup>, (Gerstner, 2024)<sup>[12]</sup>, (Atlassian, 2025)<sup>[20]</sup> and (Kashyap, 2025)<sup>[6]</sup>.

## 1.2. Definition of Traditional Approaches

Conventional project management is a well-established methodology characterized by its systematic, linear approach to executing projects. Often associated with the Waterfall model, this method requires that each stage be fully completed before progressing to the next. These stages typically include initiation, planning, execution, monitoring, and closure. This sequential strategy ensures that all requirements and project scopes are clearly defined from the beginning, thereby minimizing the likelihood of modifications as the project advances.

The foundational principles of traditional project management stress the importance of thorough planning and a steadfast commitment to timelines and budgets. Comprehensive documentation is a key feature of this framework; project plans, requirement specifications, and progress reports are meticulously maintained throughout the project's lifecycle. By adhering to these established phases and documentation standards, conventional project management improves visibility into both progress and resource allocation.

The PMBOK (Project Management Body of Knowledge) Guide supports these attributes by outlining best practices across various domains, including integration, scope, time, cost, quality, human resources, communication, risk management, procurement, and stakeholder engagement. Such practices foster a controlled environment where potential risks can be identified and addressed proactively from the outset.

Conventional methodologies thrive in contexts where project requirements are stable and well-defined from the start. They are particularly effective for projects with fixed scopes—such as construction or manufacturing—where unforeseen changes can lead to significant delays or budget overruns if not managed properly.

While this framework offers a clear structure for managing projects efficiently within defined boundaries, it may struggle to adapt to environments characterized by rapid change or evolving requirements. Nonetheless, its strengths lie in providing systematic control over project execution through strategically planned milestones and deliverables. See references: (Kashyap, 2025)<sup>[6]</sup> and (Goetz, 2023)<sup>[11]</sup>.

## 2. COMPARATIVE ANALYSIS OF AGILE AND TRADITIONAL APPROACHES

### 2.1. Flexibility and Adaptability

Agile project management is fundamentally characterized by a strong focus on adaptability and responsiveness, enabling teams to quickly adjust to changes throughout the project lifecycle. This approach is organized around iterative cycles, dividing work into short, manageable segments known as sprints. During each sprint, teams can frequently reassess and modify their direction based on feedback, fostering an environment where changes can be made with minimal disruption.

The iterative nature of Agile allows teams to seamlessly integrate new information or evolving customer needs into their ongoing efforts. This ability to adapt is especially valuable in sectors marked by high uncertainty or rapidly changing market conditions, such as software development. Agile methodologies—like Scrum and Kanban—empower teams by promoting collaboration and facilitating continuous feedback from stakeholders. This not only helps ensure that deliverables meet user expectations but also speeds up the entire development process.

In contrast, traditional project management approaches often emphasize a more rigid structure, where thorough planning occurs at the outset and adherence to a linear timeline is crucial. Changes in requirements usually necessitate formal approval processes, which can significantly disrupt timelines and budgets. Such rigidity may hinder responsiveness to shifting project landscapes.

Moreover, Agile's inherent flexibility encourages innovation by allowing teams to experiment with new technologies and ideas without being constrained by excessive documentation or predetermined paths. By prioritizing adaptability over strict compliance with initial plans, Agile methodologies foster a culture of continuous improvement and learning within teams.

This built-in flexibility makes Agile particularly beneficial for projects that require swift reactions to customer feedback or changing market trends. As a result, organizations that adopt Agile methodologies often find themselves better equipped to navigate the complexities of modern project environments while achieving high levels of customer satisfaction. See references: (Agile project management: Principles, benefits, tools, tips, and when to make the switch, 2023)<sup>[7]</sup>, (Agile vs Traditional Project Management [Top Differences], 2025)<sup>[8]</sup> and (Team, 2025)<sup>[5]</sup>.

### 2.2. Stakeholder Engagement

Engaging stakeholders is crucial in Agile project management, setting it apart from traditional methods. Stakeholders actively contribute throughout the project, ensuring their feedback shapes its evolution and allows for swift adjustments to meet their needs. Agile methodologies promote stakeholder involvement through regular iterations and feedback loops. Each sprint enables the reassessment of priorities based on stakeholder input, helping teams refine deliverables to better align with business objectives and user expectations. Unlike conventional approaches, Agile maintains a strong focus on collaboration and communication.

Moreover, Agile emphasizes transparency by providing frequent updates on progress and challenges. Daily stand-up meetings and sprint reviews encourage open discussions, keeping everyone informed and engaged. This interaction fosters stronger relationships built on trust and understanding.

The iterative nature of Agile allows diverse stakeholder viewpoints to be integrated early in the process, helping identify potential

issues or enhancements before they escalate. Stakeholders can validate solutions incrementally rather than waiting for final reviews, leading to higher satisfaction among clients and end-users.

While involving stakeholders may require additional time for consultations during sprints, the long-term benefits include improved product quality and alignment with user needs. Organizations using Agile typically experience faster delivery and more successful outcomes due to active stakeholder participation. See references: (Agile project management: Principles, benefits, tools, tips, and when to make the switch, 2023)<sup>[7]</sup>, (Székely et al., 2025)<sup>[13]</sup>, (Gerstner, 2024)<sup>[12]</sup>, (Dugbartey & Kehinde, 2025)<sup>[14]</sup>, (Sirisha et al., 2024)<sup>[3]</sup> and (Project Management Methodologies Examples & Overview | Teamwork.com, 2025)<sup>[22]</sup>.

### 2.3. Risk Management Strategies

Risk management in Agile and traditional project management differs significantly due to their core philosophies. Traditional project management is systematic, emphasizing detailed risk assessments and planning upfront. It involves identifying potential risks early and developing extensive mitigation strategies, with a strong focus on documentation and adherence to predetermined plans.

In contrast, Agile project management adopts a more dynamic approach, promoting continuous risk assessment throughout the project lifecycle. It encourages adaptive planning that allows teams to address risks as they arise during iterative cycles. Agile integrates regular feedback loops from stakeholders, facilitating early detection of threats and quick formulation of solutions.

Stakeholder engagement is crucial in Agile for effective risk management, ensuring concerns are promptly addressed and adjustments made to minimize negative impacts. Traditional methods, however, often limit stakeholder involvement to specific phases, which can result in overlooked risks until later stages.

Both methodologies acknowledge the importance of communication in managing risks. Agile fosters an environment where teams can make swift decisions based on real-time data, while traditional approaches tend to follow a hierarchical decision-making process that delays responses to emerging risks.

Ultimately, effective risk management requires understanding the project's context. Combining structured planning from traditional methods with Agile flexibility may enhance overall efficacy. See references: (Zandhuis et al., 2025)<sup>[12]</sup>, (Team, 2025)<sup>[5]</sup>, (Calcuttawala & Dyson, 2024, pages 1-5)<sup>[9]</sup>, (Sirisha et al., 2024)<sup>[3]</sup> and (<https://www.consultancy.eu> & , 2024)<sup>[18]</sup>.

## 3. STRENGTHS OF AGILE PROJECT MANAGEMENT

### 3.1. Customer Collaboration and Feedback Loops

Agile project management emphasizes collaboration with customers and continuous feedback throughout the project lifecycle. This approach values consistent client interaction, recognizing that their insights are vital for developing products that meet their needs. By involving customers from the start, Agile teams can quickly adapt to changing requirements, aligning outcomes with stakeholder expectations.

Frameworks like Scrum and Kanban implement regular reviews and iterative processes to maintain a steady flow of feedback. This allows teams to assess progress and make necessary adjustments, providing stakeholders with early visibility of the product rather than waiting until completion. Incorporating customer feedback enhances satisfaction and reduces the risks of mismatches between expectations and outcomes.

Cross-functional teams thrive in this collaborative environment, where members are encouraged to share ideas and contribute to decision-making. This synergy fosters creativity and accelerates problem-solving while ensuring diverse perspectives are considered.

Frequent communication is crucial in Agile settings, promoting clarity among team members and stakeholders. Unlike traditional methods that rely on detailed documentation, Agile prioritizes direct dialogue, leading to quicker resolutions of issues. Open communication builds trust with customers, strengthening collaborative relationships.

In summary, customer collaboration in Agile project management is essential for success. The emphasis on feedback loops keeps projects responsive to market demands and enhances client satisfaction through ongoing engagement. See references: (Goetz, 2023)<sup>[1]</sup>, (Team, 2025)<sup>[5]</sup>, (What is Agile Project Management ? | APMG International, 2025)<sup>[17]</sup>, (Saiyed, 2024)<sup>[4]</sup> and (Saghir, 2025)<sup>[16]</sup>.

### 3.2. Rapid Delivery Cycles

Agile project management emphasizes quick delivery cycles through segmented phases known as sprints, enabling teams to provide functional project components more consistently. This approach encourages continuous reassessment based on stakeholder feedback and evolving requirements. Each sprint concludes with a review session, allowing teams to reflect on progress and integrate new insights into future iterations, fostering a culture of ongoing improvement.

By delivering smaller increments of work, Agile reduces the risks associated with long-term planning. Unlike traditional methodologies that result in a final product after extensive preparation, Agile allows for rapid adjustments based on business priorities and market needs.

Collaboration among cross-functional teams is a key aspect of Agile, enhancing communication and cooperation. This environment helps teams quickly tackle challenges and fosters a sense of ownership among members. Regular feedback not only improves product quality but also strengthens relationships with stakeholders actively involved in shaping project outcomes.

In fast-changing industries, this adaptability is crucial. The ability to respond to user feedback promptly leads to greater customer satisfaction, as end-users can continuously influence development. This flexible approach contrasts with traditional methods, which often limit changes once a phase is complete. Ultimately, Agile's quick delivery cycles empower teams to effectively respond to market shifts while aligning with organizational goals through sustained stakeholder engagement. See references: (Saiyed, 2024)<sup>[4]</sup>, (Dugbartey & Kehinde, 2025)<sup>[44]</sup> and (Agile vs Traditional Project Management [Top Differences], 2025)<sup>[8]</sup>.

#### 4. WEAKNESSES OF AGILE PROJECT MANAGEMENT

##### 4.1. Less Predictability in Outcomes

Agile project management is characterized by adaptability and a cyclical nature, which can introduce unpredictability in outcomes compared to traditional methodologies. This uncertainty stems from continuous feedback and ongoing modifications during the project lifecycle. While Agile allows teams to respond quickly to changes, it can lead to evolving objectives and altered timelines. Teams working in short sprints often face new insights or stakeholder demands that necessitate immediate strategy adjustments, potentially resulting in scope creep as features are added without fully understanding their impact on delivery schedules and resource allocation. Although Agile promotes innovation and responsiveness, it can obscure the final product vision until late in development. Moreover, Agile's focus on customer engagement over strict documentation can make critical aspects like cost estimations and deadlines less clear. The lack of thorough advance planning complicates progress assessments for stakeholders accustomed to traditional approaches emphasizing meticulous planning and established milestones.

Effective team dynamics are crucial in an Agile environment where change is constant. Poor communication among team members regarding shifting requirements can increase unpredictability in deliverables and timelines. As teams navigate these complexities without definitive guidance, variations in quality may emerge, jeopardizing stakeholder satisfaction. Thus, while Agile fosters creativity and responsiveness, it does so at the cost of predictability, warranting careful consideration in project management strategy selection. See references: (Saiyed, 2024)<sup>[4]</sup>, (Kashyap, 2025)<sup>[6]</sup>, (Agile vs Traditional Project Management [Top Differences], 2025)<sup>[8]</sup> and (Team, 2025)<sup>[5]</sup>.

##### 4.2. Challenges in Scaling Up

Expanding Agile project management frameworks presents a range of unique challenges that can undermine their effectiveness, particularly in larger projects or organizations. A key obstacle is the difficulty in maintaining Agile's principles of adaptability and rapid response as projects become larger and more complex. As teams grow, the introduction of more formalized processes can inadvertently create bureaucratic barriers that erode the essential benefits of Agile practices. This often leads to slower decision-making and decreased responsiveness, counteracting the advantages that Agile aims to provide.

Another challenge associated with scaling is the need for consistent communication and collaboration among larger teams. Agile thrives in close-knit, cross-functional groups where active participation and teamwork are crucial. However, as teams expand, achieving this level of interaction becomes more complicated, resulting in potential misunderstandings and misalignments concerning team members' goals and objectives.

Moreover, managing interdependencies among different teams working on various components of a project can turn into a complex task. It requires careful coordination to ensure that all elements align with the overall project vision while remaining flexible enough to adapt to new changes. Without effective coordination strategies, there is a considerable risk of bottlenecks that could hinder progress.

Additionally, organizations trying to scale Agile often fall into the trap of imposing excessive structure too quickly. While some level of governance is necessary for risk management and maintaining quality standards, overly rigid structuring can stifle creativity and slow down responsiveness—two defining traits of successful Agile methodologies.

Finally, establishing meaningful metrics for evaluating progress across multiple teams poses a challenge without overshadowing individual team achievements. The pursuit of standardized metrics may conflict with the customized approaches favored in Agile practices, thus complicating efforts to accurately measure success. See references: (Saiyed, 2024)<sup>[4]</sup>, (Calcuttawala, 2024)<sup>[10]</sup> and (What Is Agile Project Management? The Agile Methodology Guide, 2025)<sup>[11]</sup>.

#### 5. STRENGTHS OF TRADITIONAL APPROACHES

##### 5.1. Structured Planning and Documentation

Traditional project management employs a structured framework focused on extensive planning and documentation throughout the project lifecycle. It progresses through defined stages: initiation, planning, execution, monitoring, and closure, ensuring thorough attention to each facet before moving to the next stage. This linear approach provides clarity, with team members aware of their roles within the established structure.

Central to this methodology is detailed documentation. Project managers create comprehensive plans that outline goals, scope, timeline, and resource allocation, serving as essential references for stakeholders throughout the project. Accurate records enhance



accountability and provide historical insight for future projects.

The predictability of traditional methods supports effective risk management by identifying potential risks early and implementing mitigation strategies. Changes to scope or timelines are typically discouraged once work begins, usually handled through formal change control procedures, making this approach ideal for projects with fixed requirements.

Additionally, the hierarchical design ensures clear communication and decision-making pathways, with project managers overseeing operations to meet deadlines and budgets. While this top-down model fosters order, it may limit adaptability to unexpected challenges.

Overall, traditional project management is most effective for projects with well-defined objectives and stable environments, maintaining its relevance across industries that require clarity and rigor in operations. See references: (Saiyed, 2024)<sup>[4]</sup>, (Goetz, 2023)<sup>[1]</sup> and (Team, 2025)<sup>[5]</sup>.

## 5.2. Clear Milestones and Deliverables

Conventional project management approaches highlight the importance of clearly defined milestones and deliverables throughout the entire project lifecycle. These elements serve as crucial checkpoints, ensuring that projects remain aligned with their intended timelines and stay on track. During the planning phase, stakeholders set milestones, which are key events or significant points along the project timeline that indicate progress. Each milestone is associated with specific deliverables that must be completed before moving on to the next stages of the project.

A key feature of traditional project management is its focus on clearly articulated deliverables. These tangible outputs—ranging from reports to prototypes and finished products—are produced at each phase of the project. It is essential that these deliverables meet predetermined quality standards and receive stakeholder approval before proceeding further. This structured methodology fosters a sense of accountability among team members, reinforcing their understanding of individual responsibilities related to each deliverable.

Moreover, conventional methodologies frequently involve comprehensive documentation practices linked with both milestones and deliverables. Such thorough records ensure a transparent account of completed work at every stage, improving communication between team members and stakeholders alike. This also enables effective monitoring of progress concerning milestones, providing a foundation for evaluating the project's performance over time.

Another significant aspect is the formal change management protocol integrated within traditional frameworks. Since changes can affect timelines and budget constraints, any modifications to milestones or deliverables typically require authorization from project managers or steering committees. This contrasts sharply with agile methodologies, where flexibility allows for adjustments based on evolving project requirements.

Ultimately, by establishing clear milestones and deliverables within a structured framework, traditional project management provides teams with explicit objectives and a strategic approach to achieving them efficiently while reducing uncertainties associated with changes in scope. See references: (Saiyed, 2024)<sup>[4]</sup>, (Goetz, 2023)<sup>[1]</sup> and (Team, 2025)<sup>[2]</sup>.



Figure 1: Agile vs. Waterfall: Choosing the Right Project... (source: reference (Goetz, 2023)<sup>[1]</sup>)

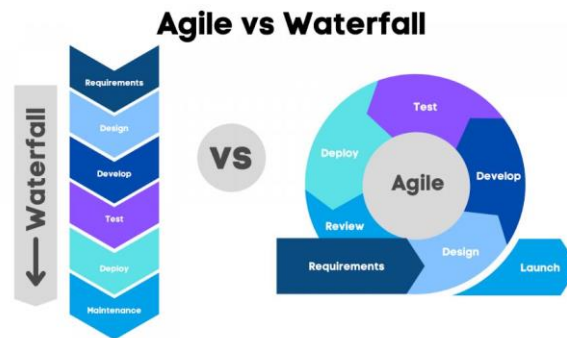


Figure 2: Agile vs. Waterfall: Which Project Management Method... (source: reference (Goetz, 2023)<sup>[11]</sup>)



Figure 3: Agile vs Waterfall Project Management (source: reference (Goetz, 2023)<sup>[11]</sup>)

## 6. WEAKNESSES OF TRADITIONAL APPROACHES

### 6.1. Inflexibility to Change Requirements

Traditional project management is characterized by a strict framework, which often leads to an inability to adapt when faced with changing demands. This approach follows a linear, step-by-step process known as the waterfall model. Each phase—planning, design, implementation, testing, and deployment—must be carefully completed in order before proceeding to the next stage. This rigid adherence to a pre-established roadmap means that even minor changes in project requirements can disrupt the entire workflow. The central problem stems from the need for formal processes and approvals whenever changes are necessary. Any deviation from the original scope typically requires revisiting earlier planning stages and can involve extensive paperwork. This cumbersome process may cause delays, as teams have to navigate bureaucratic obstacles just to make slight adjustments.

Moreover, this rigidity hampers responsiveness to the evolving needs of stakeholders or changing market conditions. Since traditional project management operates within fixed budgets and timelines set at the project's start, unexpected changes can lead to significant cost overruns and missed deadlines. Teams often find themselves constrained by these limitations, leaving little room for innovation or creative problem-solving.

While structured planning offers predictability in outcomes—which is beneficial for straightforward projects—it becomes a hindrance in more complex or dynamic environments where adaptability is crucial. Traditional methodologies struggle to accommodate iterative learning that develops over time; instead, they penalize any departures from the initial plan without providing avenues for adjustment based on new insights gained during execution.

This inflexibility ultimately introduces risks for projects that require agility to address unforeseen challenges or capitalize on opportunities that may arise throughout the development cycle. See references: (Kashyap, 2025)<sup>[6]</sup>, (Agile vs Traditional Project Management [Top Differences], 2025)<sup>[8]</sup>, (Differences, 2025)<sup>[15]</sup> and (Team, 2025)<sup>[5]</sup>.

### 6.2. Longer Timeframes for Delivery

In conventional project management, the emphasis on thorough initial planning and a linear progression through clearly defined stages leads to extended delivery timelines. Each phase—initiation, planning, execution, monitoring, and closure—must be completed in a specific order before moving on to the next. This methodology is commonly referred to as the Waterfall model, where the completion of each stage is essential for maintaining the overall schedule. As a result, projects can take months or even years from inception to delivery.

The rigidity inherent in this approach means that once a project plan is finalized, making any changes to requirements or scope becomes a challenging task filled with delays. The reliance on detailed documentation and formal approval processes further slows

progress, as stakeholders must carefully review and approve various stages before any advancement can occur. Even minor adjustments can create significant ripple effects throughout the project timeline. Moreover, while traditional project management provides a well-structured environment that fosters clear expectations and accountability, it struggles to support iterative development. The requirement to deliver all components at once at the end of each phase can hinder responsiveness to changing customer needs or evolving market conditions. In cases where requirements are relatively stable and well-defined from the beginning—such as in construction or manufacturing—the lengthy timelines associated with traditional project management may be acceptable. However, for projects that require flexibility or those situated in rapidly changing environments, these prolonged timeframes can pose a substantial disadvantage, potentially leading teams to miss opportunities for innovation and improved customer engagement. See references: (Agile vs Traditional Project Management [Top Differences], 2025)<sup>[8]</sup>, (Team, 2025)<sup>[5]</sup>, (Differences, 2025)<sup>[15]</sup>, (Kashyap, 2025)<sup>[6]</sup> and (Team, 2025)<sup>[19]</sup>.

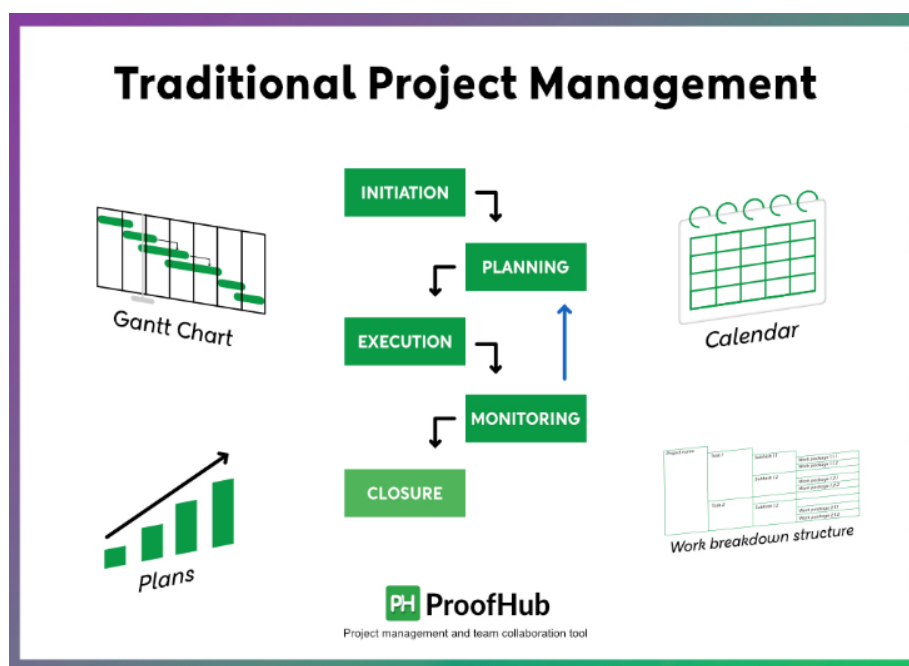


Figure 4: traditional project management (source: reference (Kashyap, 2025)<sup>[6]</sup>)

## 7. PRACTICAL CASE STUDIES: WHEN TO USE EACH METHODOLOGY

### 7.1. Industry-Specific Examples

In the realm of project management methodologies, concrete examples from various industries demonstrate how Agile and traditional approaches can be effectively utilized according to specific project needs and limitations. In software development, Agile methodologies such as Scrum or Kanban are often favored due to their flexibility and iterative nature. These projects frequently face rapidly changing requirements along with a critical need for close collaboration with end-users. For example, a technology company developing a new application might implement Agile practices to allow teams to release features incrementally while continuously incorporating user feedback. This agility ensures that the final product aligns closely with user expectations and can adapt to shifting market demands.

Conversely, traditional project management techniques like Waterfall are primarily employed in construction projects, where requirements are typically well-defined from the outset. Such projects require extensive planning, strict compliance with regulations, and clearly established milestones, making frameworks like PRINCE2 or PMBOK particularly suitable. For instance, in managing the construction of a skyscraper, project managers depend on these conventional methodologies to develop a detailed timeline that outlines each phase of construction—from design approval to final inspection—while ensuring adherence to safety standards and budget constraints.

Furthermore, hybrid models are gaining popularity across various sectors, where combining Agile's adaptability with traditional frameworks can provide significant benefits. In large infrastructure projects, for example, some components may necessitate careful planning, while others may benefit from iterative development methods; in such instances, teams might adopt both methodologies simultaneously to enhance their overall approach.

These industry-specific examples highlight the importance of selecting an appropriate project management methodology to achieve project goals while addressing the unique challenges inherent in different fields such as software development or construction. See

references: (Simonaitis et al., 2023)<sup>[23]</sup>, (Agile vs Traditional Project Management [Top Differences], 2025)<sup>[8]</sup> and (Team, 2025)<sup>[5]</sup>.

## 8. RECOMMENDATIONS ON SELECTING AN APPROACH BASED ON CONTEXTUAL FACTORS

### 8.1. Evaluating Project Size and Complexity

Choosing the right project management methodology requires analyzing a project's scale and complexity. Large projects typically involve numerous stakeholders, significant budgets, and extended timelines, necessitating a structured approach found in traditional project management. This framework offers comprehensive documentation and defined milestones, enhancing communication and accountability. In contrast, smaller projects may thrive under agile methodologies, which prioritize adaptability and rapid iterations, allowing teams to quickly adjust based on feedback.

The complexity of the project also affects methodological choices. Projects with uncertainty or frequent changes benefit from agile methods due to their flexible structure, fostering ongoing stakeholder engagement and feedback loops. Traditional project management, however, is more effective for straightforward projects with clear requirements and predictable outcomes.

Technological factors play a crucial role in selecting a methodology. Established technologies align better with traditional frameworks, requiring less adaptation during implementation. Conversely, agile methodologies promote experimentation with innovative tools that can improve results but require a willingness to embrace change.

Additionally, the regulatory environment must be considered, as highly regulated fields like healthcare or finance demand strict adherence to standards, which traditional methodologies can provide through detailed documentation. Understanding the scale and complexity of a project allows organizations to tailor their approach, balancing the predictability of traditional methods with the flexibility of agile frameworks for successful project completion. See references: (Székely et al., 2025)<sup>[13]</sup>, (Saiyed, 2024)<sup>[4]</sup>, (Differences, 2025)<sup>[15]</sup>, (Calcuttawala & Dyson, 2024, pages 36-40)<sup>[9]</sup> and (Kashyap, 2025)<sup>[6]</sup>.

### 8.2. Assessing Team Structure and Experience Levels

When choosing between Agile and Traditional project management methodologies, it's essential to consider the team's structure and experience. The team's skills, backgrounds, and past performance significantly influence which approach will be more effective. Agile thrives in environments that emphasize collaboration and adaptability. Teams experienced in iterative methods and strong communication are likely to succeed with Agile, especially when they embrace changing requirements and seek customer feedback. In contrast, Traditional project management favors a structured approach suited for teams comfortable with clearly defined roles and responsibilities. Those skilled in planning, documentation, and adhering to timelines perform better within traditional frameworks. Experience with linear workflows helps these teams manage projects with fixed scopes efficiently.

Organizations should also evaluate past performances to gauge readiness for Agile or Traditional methods. A history of successful Agile projects may indicate preparedness for similar future endeavors, while teams with strengths in Traditional practices might need to proceed cautiously if considering Agile.

Additionally, organizational culture impacts methodology selection based on team dynamics. Cultures that promote collaboration align well with Agile, whereas hierarchical settings may find Traditional methods more suitable.

Ultimately, assessing team dynamics and experience is crucial for stakeholders to choose the most appropriate project management methodology for their specific needs. See references: (Saiyed, 2024)<sup>[4]</sup> and (Calcuttawala & Dyson, 2024, pages 36-40)<sup>[9]</sup>.

## 9. CONCLUSION: KEY TAKEAWAYS FROM ANALYSIS

The exploration of Agile versus Traditional project management methodologies reveals significant differences that influence their suitability for various project environments. Agile methodologies excel in flexibility and responsiveness, allowing teams to quickly adapt to changing stakeholder expectations and market conditions. This iterative framework promotes ongoing collaboration with clients, creating fast feedback systems that enhance product development and customer satisfaction. However, the unpredictability associated with Agile can present challenges, particularly in larger projects where applying its principles at scale can be difficult.

On the other hand, Traditional project management relies on detailed planning and predictable timelines, making it ideal for projects with clearly defined scopes and specific deliverables. Its emphasis on comprehensive documentation helps facilitate communication among stakeholders; however, this rigidity may hinder the ability to respond to evolving demands. In situations anticipating change or requiring high levels of customer involvement, the inflexibility of Traditional methods can result in delays or a disconnect from stakeholders' needs.

Choosing between these methodologies requires careful consideration of various contextual factors such as the project's size, complexity, team dynamics, and organizational culture. For smaller to medium-sized projects characterized by high uncertainty or those that benefit from continuous user feedback, Agile may yield outstanding results. Conversely, larger projects that require strict scope management and thorough documentation might find Traditional approaches more beneficial.

Ultimately, both methodologies have their unique strengths and weaknesses; therefore, organizations should strive for a tailored strategy that aligns their project management approach with specific goals and constraints. The decision-making process should involve an understanding of the potential benefits associated with each methodology while also considering whether the team is ready for any necessary adjustments. See references: (Calcuttawala & Dyson, 2024, pages 1-5)<sup>[9]</sup>, (Goetz, 2023)<sup>[11]</sup>, and (Differences,



2025)<sup>[15]</sup>.

## 10. STATEMENTS AND DECLARATIONS

### 10.1. Availability of data and material

All data supporting the findings of this study are publicly available in the cited literature. No new datasets were generated or analyzed during the current study.

### 10.2. Competing interests

The authors declare that there are no competing interests.

### 10.3. Funding

This research received no external funding.

### 10.4. Consent to Publish Declaration

Not applicable.

### 10.5. Consent to Participate Declaration

Not applicable.

### 10.6. Ethics Declaration

Not applicable.

### 10.7. Acknowledgements

Not applicable.

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